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NEW DATA FROM POIKE (RAPA NUI – EASTER ISLAND): DYNAMIC ARCHITECTURE OF A SERIES OF AHU*

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INTRODUCTION

OVER THE LAST FEW YEARS, THE Royal Museums of Art and History, with the collaboration of the University of Ghent, have undertaken a series of excavations on Easter Island. The starting point of this research was to verify the archaeological context of a colossal statue brought back to Belgium in 1935, on the occasion of the Franco-Belgian mission directed by Alfred Métraux and Henri Lavachery (Métraux 1941; Lavachery 1935). The great antiquity of the *ahu* uncovered at o Rongo in 2001, on the bay of Hanga Roa, was the stimulus to new inquiries pertaining to the early phases of Rapanui religious architecture (Huyge and Cauwe 2002). Within this scope, excavations have been undertaken since December 2004 on Poike Peninsula (Cauwe and Huyge 2004), in particular at a monument, Ahu Motu Toremo Hiva⁴, along the northern coast (Figure 1), located immediately east of Maunga Parehe, the northernmost of the three trachyte domes that characterize the northern slope of the Poike volcano.

This structure, already listed by Sebastian Englert (2004: 268, no. 149), was only known to bear some superficial architectural elements spread out over a length of approximately 32 m. On the basis of these remains, it could be suggested that the site consisted of an *ahu* made up of a central platform of almost 15 m in length and augmented with lateral wings to the east and the west, the extremities of which had been truncated or interrupted by broad depressions formed by erosion. There was no obvious trace of a paved ramp in front of the *ahu* platform.

On the landward side, the wall of the platform appeared relatively well preserved, but was almost completely covered by sediments. Immediately south of this wall, a large, much eroded block of yellowish tuff of Rano Raraku type suggested the presence of a *moai* at the site.

The seaward façade, on the

other hand, has largely collapsed. Many of the fallen blocks are still present on the seaward slope leading from the *ahu* to the terrace-like basal weathering front of the basaltic bedrock. A few wall elements still *in situ* today demonstrate that the monument was, along this side, at least 2.5 m high. It had been built using large, irregularly shaped basalt blocks of various dimensions, which had only been very rudimentarily hewn. On either side of this safeguarded fragment of the seaward *ahu* façade, the loose interior fill could be observed (unconsolidated rubble essentially composed of trachyte and basalt fragments of variable size).

A SUCCESSION OF AHU

The work undertaken in 2004 and 2005 at Ahu Motu Toremo Hiva (AMTH) uncovered a succession of three *ahu* (Cauwe et al. 2005), only the most recent of which was partly visible on the surface (Figure 2). This accumulation of monuments at one spot is definitely not a novelty for Easter Island: it replicates construction at Ahu Nau Nau on Anakena beach, at Ahu o Rongo where two superimposed *ahu* can be found (Huyge and Cauwe 2002) and at other sites that have not been excavated yet, for example Ahu Akahanga on the South Coast and Ahu te Niu immediately north of Ahu te Peu (Routledge 1919; Métraux 1971; Englert 2004; Flenley and Bahn 2002). But in the case of the Poike structure, the phe-



Figure 1. The northern flank of Poike, showing the location of Ahu Motu Toremo Hiva.

*This paper has been peer reviewed

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⁴This peculiar toponym derives from the name of a minuscule islet situated a few hundreds of meters to the east, not far from Cape O'Higgins. It is indicated on the 1/25,000 map published in 1968 by the Servicio Aerofotogrametrico de la Fuerza Aerea de Chile. On the map of Easter Island edited in 2004 by the Instituto Geográfico Militar (carta regular de Chile, sheet C117 E), however, the same islet bears the name Varinga te Toremo. The GPS-reading of Ahu Motu Toremo Hiva is: 27° 05.683' S - 109° 14.920' W.

nomenon can be perceived in a coherent stratigraphic context, thus leading to a whole series of observations concerning the evolution of the natural environment on a local scale and the modifications made to the monuments that reflect the function and/or their abandonment. In addition to the study of subsequent architectural phases, this situation offers some



Figure 2. Ahu Motu Toremo Hiva: general view of the 2005 excavation.

exciting paleo-ethnographical possibilities. As such, the site is quite similar to what has been brought to light at Anakena (Martinsson-Wallin and Wallin 2000).

DESCRIPTION OF THE MONUMENTS

The oldest ahu (AMTH-I)

Based upon the current state of work, AMTH-I is only known over a length of 5 m. The larger part of the monument extends towards the west, in a zone that has not yet been explored. It can tentatively be suggested that this *ahu* is composed of a platform that is almost 2 m in width, of which the seaward façade rests on a solid foundation substructure. On the landward side, the façade is equipped with a relatively narrow ramp (± 1.80 m wide), but whose incline is rather steep. This ramp has only been uncovered over a length of 1.60 m, but its eastern corner has been located (Figure 3). To the east of this ramp, the façade of the platform rests on a broad foundation substructure jutting out (± 0.50 m), in front of which a level area was found with loosely scattered large blocks of trachyte. This level possibly constitutes the ruins for the eastern wing of the monument.

With the exception of the rear façade (seaward), composed of carefully hewn blocks, the whole of the monument was built up with rough, un-hewn trachyte elements, taken from nearby Maunga Parehe and/or Maunga Tea Tea. The stonework of its walls is nevertheless quite regular.

In view of the stratigraphic evidence, the greater antiquity of AMTH-I compared to the most recent monument at the site (AMTH-III) is beyond question. On the other hand, the chronological relation between AMTH-I and AMTH-II is more difficult to determine. In fact, these two monuments have been constructed one beside the other, and their zone of contact has not yet been explored. However, several arguments make it possible to propose, subject to verification, the prior construction of AMTH-I compared to AMTH-II. Indeed, the southern façades of these two *ahu* do not possess the same alignment, which seems to exclude their simultaneous construction. In addition, on the seaward side, the foundation of AMTH-II seems to rest upon those of AMTH-I.

Second occupation of the site (AMTH-II)

The second *ahu* constructed at Ahu Motu Toremo Hiva has also only partially been excavated. Its western boundary is already known, but its extent towards the east cannot be presently estimated. Part of the monument seems to have been

carried off by gully erosion. Partial cleaning of the eastern flank of the broad eroded depression west of the excavated remains, however, showed that AMTH-II probably projected beyond that point.

On the landward side, in front of the ramp and the wings of the platform, a construction surface was prepared. The southern extension of this surface is not yet known. A large *poro* was found *in situ* on this surface, as well as five negative impressions of similar cobbles. The disappearance of the majority of these *poro* seems to be the result of an intentional act. Indeed, the construction surface into which these *poro* were integrated, however fragile, does not show any evidence of disturbance (no erosion traces, for instance). These marks would definitely have been present if the site had been ravaged by natural phenomena. But, since the sediments overlying this surface do not show any trace of disturbance, the removal of the *poro* must date from near the moment it was decided to abandon AMTH-II.

Third ahu construction (AMTH-III)

The AMTH-III monument was built between AMTH-I and AMTH-II, whose ruins were partially used as foundations. The landward façade of AMTH-III is preceded only by an area paved with small cobbles and powdered with yellowish dust – the precise nature of which is still to be determined. Here too, negative impressions of *poro* could be observed. The disappearance of these *poro* seems to be the result of a

similar action as in the case of AMTH-II.

The platform itself was built by means of large-sized blocks of comparable gauge, laid out in four regular, sub-horizontal courses. They are clearly less regular to the east, where the AMTH-III platform forms a junction with the older wall of the AMTH-II platform. In the west, the builders of AMTH-III masked the landward wall of AMTH-I by a new facing, in order to reduce the difference in alignment between AMTH-I and AMTH-II (Figure 5).

The last monument erected at Ahu Motu Toremō Hiva was therefore quite unsophisticated and even opportunistic in that it used the adjacent monuments to reduce the level of construction effort. There is no landward ramp in front of the rectangular platform. Its construction surface is only equipped with a *poro* pavement. In addition, no wings were built. The areas where they should have been, were, in fact, already occupied by the ruins of AMTH-I and AMTH-II.

PRESENCE OR ABSENCE OF MOAI

Deposition of hani hani

Following the abandonment of AMTH-III, the plaza in front of the platform was partially covered by natural sedimentation (sheet wash deposits), but also by a discontinuous distribution of *hani hani* (red scoria). The significance of these granules, sometimes rather thick (up to 10 cm in certain sectors), is not perceptible for the moment. It could represent a symbolic condemnation of the monument, preparation of the surface for an activity unrelated to the earlier *ahu*, or destruction of *pukao* that may have once capped the statue(s) erected at the site.

Recycling of a moai head

To date, no complete statue has been found associated with the monuments of Ahu Motu Toremō Hiva, only

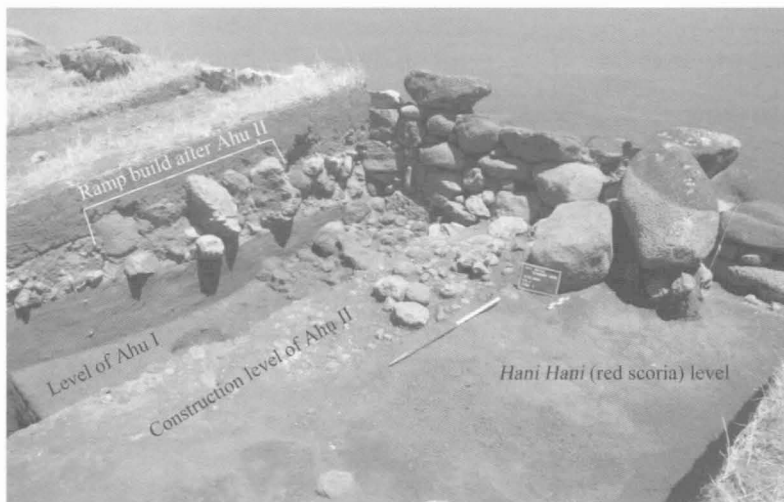


Figure 3. Two views of Ahu Motu Toremō Hiva, and the ramp intended for the removal of *moai*.

Table 1. ^{14}C Dating of samples collected at Ahu Motu Toremō Hiva in 2004. Calibration using *OxCal* v3.10 (Bronk Ramsey 2005) and Southern Hemisphere atmospheric data (McCormac et al. 2004).

Event	Sample no.	Lab no.	BP	cal AD 1 σ	cal AD 2 σ
Post-abandonment burial unrelated to <i>ahu</i>	AMTH-2004-2/1	KIA-26483	150 \pm 20BP	1690AD (14.5%) 1730AD 1800AD (38.7%) 1900AD 1920AD (14.9%) 1950AD	1680AD (21.9%) 1730AD 1800AD (73.5%) 1960AD
Agricultural activity after <i>ahu</i> abandonment	AMTH-2004-1/6	KIA-26487	240 \pm 20BP	1650AD (23.1%) 1680AD 1740AD (45.1%) 1800AD	1640AD (29.1%) 1680AD 1730AD (66.3%) 1800AD
Monument AMTH-III	AMTH-2004-1/1	KIA-26452	675 \pm 20BP	1300AD (26.0%) 1325AD 1340AD (26.3%) 1365AD 1375AD (16.0%) 1390AD	1295AD (95.4%) 1395AD
Monument AMTH-III	AMTH-2004-1/3	KIA-26461	630 \pm 25BP	1320AD (44.5%) 1350AD 1385AD (23.7%) 1405AD	1310AD (58.8%) 1360AD 1370AD (36.6%) 1420AD
Monument AMTH-II	AMTH-2004-3/2	KIA-26453	675 \pm 25BP	1300AD (26.2%) 1330AD 1340AD (26.4%) 1365AD 1375AD (15.6%) 1390AD	1295AD (95.4%) 1395AD
Monument AMTH-II	AMTH-2004-3/3	KIA-26464	700 \pm 25BP	1295AD (29.3%) 1320AD 1350AD (38.9%) 1385AD	1280AD (42.5%) 1330AD 1340AD (52.9%) 1400AD

[AMTH2004-2/1: sample taken from a human skeleton found in trench 2 (inhumation posterior to use of AMTH-II); AMTH2004-1/6: sample taken from the fill of a ditch associated with agricultural activity after the use of AMTH-II; AMTH2004-1/1: sample taken from the wall of the AMTH-III platform; AMTH2004-1/3: sample taken at the base of the AMTH-III platform]

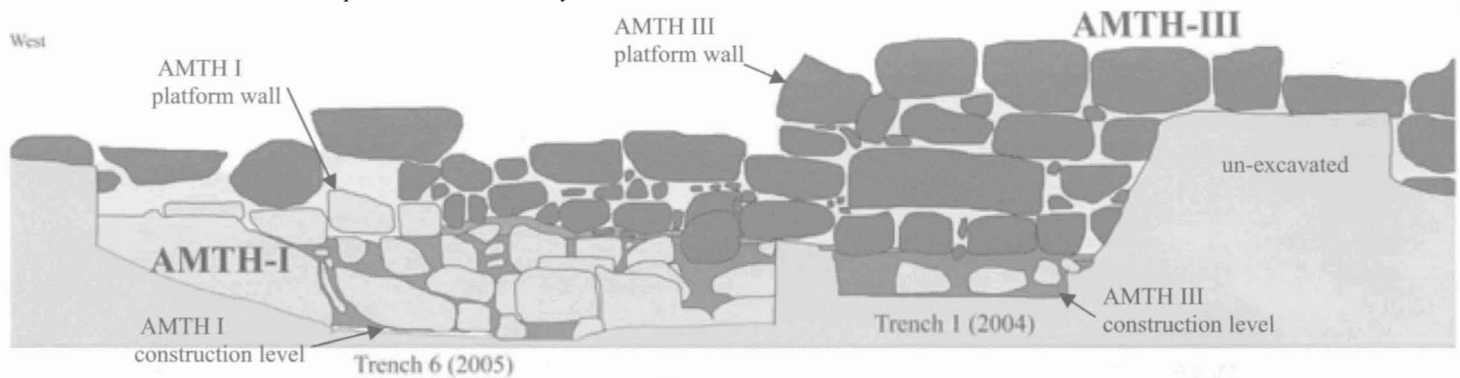


Figure 5. Ahu Motu Toremo Hiva, landward wall elevations of the three ahu.

a *moai* head of Rano Raraku remains (Figure 4). The head fragment was probably originally integrated into the landward wall of AMTH-III with the face turned towards the interior of the construction. It seems that a fragment of an older statue was recycled, the original place of erection of which is not known. Examples of the re-use of statues, or fragments of *moai*, are known elsewhere on the island. The most famous are certainly those of Ahu Nau Nau on the beach of Anakena (a face is also inserted into the wall of the platform, but with features directed towards the outside) and Ahu Maitaki te Moa on the west coast (a recycled complete statue, its face turned towards the interior of the monument).

The fragmentary head preserved at Ahu Motu Toremo Hiva is atypical in style. The face is extremely broad (1.40 m), the nose is bloated, and the hollows of the eyes are too shallow to have contained any kind of ocular insert (e.g. coral eye). Lastly, the face seems to be completely deprived of ears. Little comparison exists for this type of *moai*, except for the statue of Pou Hakanononga, preserved at the Royal Museums of Art and History in Brussels since 1935. In this case as well, one notices the broadness of the face (nearly 1.35 m), the absence of ears and the very shallow eye sockets. Regarding differences, the back of the head of Pou Hakanononga is completely rounded, whereas the *moai* of Ahu Motu Toremo Hiva has a flat occiput. The Brussels statue moreover clearly has much more pronounced eyebrow arches.

Evacuation of *moai*?

The last stage in the history of the site is, to the best of our knowledge, unparalleled on Easter Island. It consists of the construction of a broad ramp by means of large blocks posed upright and covered intentionally by a large mass of sediments⁵. This ramp apparently reached the surface level of the platform of AMTH-III; its width is moreover equal to the length of the monument (5 to 6 m at least), whereas its extension towards the south is 4 to 5 m.

On the chronological level, as indicated by a natural sedimentary interval, this ramp is clearly emplaced after the use of AMTH-III. Its purpose, however, remains enigmatic. In our opinion, the considerable effort undertaken for its construction and the solidness of the edifice – reinforced with

vertically positioned stones – may suggest a ramp intended for the removal of *moai*. This explanation is indeed compatible with the already mentioned removal of *poro* from the terraces of AMTH-II and AMTH-III. With each abandonment phase of the site, the people concerned with a particular monument carried its essence with them, *moai* as well as *poro*.

The observations made above may have further implications. *Moai* dispersed on the island, at some distance from ahu, are not necessarily abandoned along a road leading from

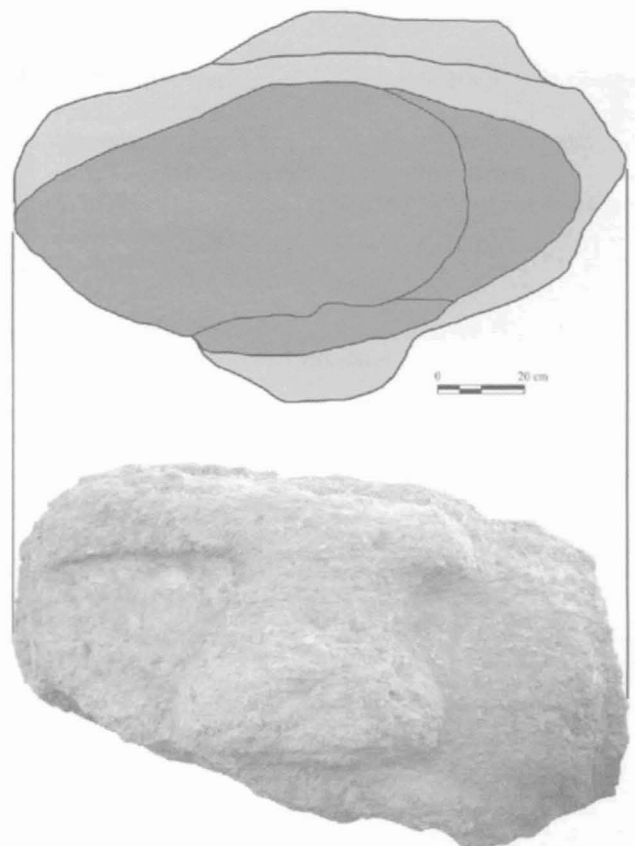


Figure 4. Ahu Motu Toremo Hiva, moai head found in the filling of the last ramp.

⁵ The anthropogenic character of this layer (Vc) was recognized by Morgan De Dapper thanks to the observation of the random orientation of the coarsest elements within it, for which no natural phenomenon can account.

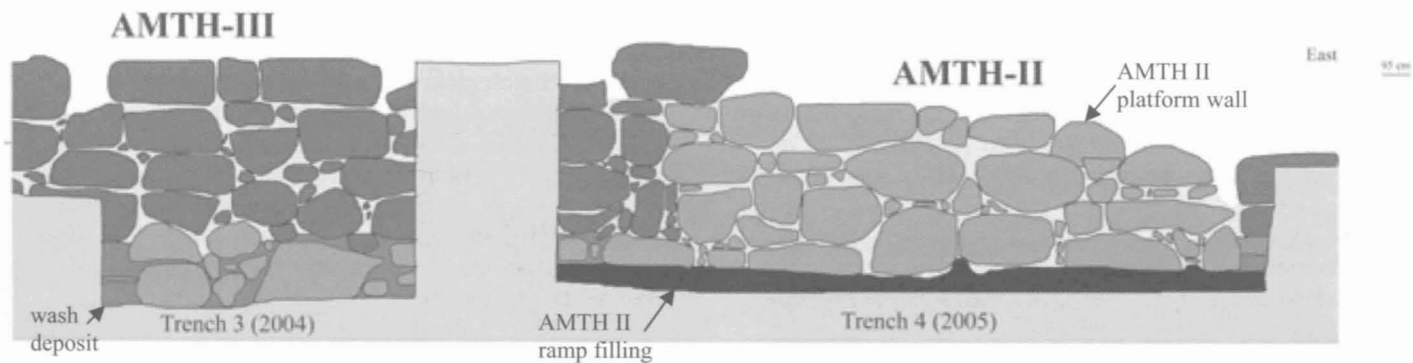


Figure 5. continued.

the quarry site to their future place of erection. Their position can also testify to a cessation of transport between two *ahu*. An example of this may be the *moai* abandoned in front of the platform of Vai Mata (northwestern flank of Maunga Ter-evaka). The statue lies a few tens of meters away from a monument of which the *moai* have purposely been intentionally toppled, and buried below a large amount of rubble. Was the isolated statue on its way to the *ahu* or was it, to the contrary, being evacuated from it?

FIRST ELEMENTS OF AN ABSOLUTE CHRONOLOGY

Several charcoal fragments, related to different events recognized at the site, were taken in 2004 in order to subject them to dating. The results of these analyses, listed in Table 1, indicate that the construction of the two most recent *ahu* (AMTH-II and AMTH-III) must have taken place sometime between the end of the 13th and the end of the 14th century cal AD. This contradicts our initial archaeological assumption that AMTH-III belongs to the classical period of *ahu* construction (15th-16th century cal AD) and that AMTH-II predates AMTH-III by a century or more (Cauwe and Huyge 2004).

Several new charcoal samples, of which the association with the different monuments appears more reliable, were taken in December 2005. These samples originate from the deforestation levels that preceded the construction of the most ancient *ahu* (AMTH-I et AMTH-II).

Awaiting the forthcoming ¹⁴C dating results, it can tentatively be suggested that the construction of AMTH-II took place in the later part of the 13th century or the beginning of the 14th century AD (sample AMTH-2004-3/3). AMTH-I should be older than AMTH-II (but how much older?), whereas AMTH-III was built before the middle of the 17th century AD (sample AMTH-2004-1/6).

The other dates obtained on the samples taken in 2004 (with the exception of AMTH-2004-2/1, associated with the burial of a leper, most likely in the course of the 19th century) are probably related to agricultural activities that took place at the site during intervals of abandonment of the ritual platforms, rather than to the monuments themselves. As a matter of fact, similar results have been obtained for stratigraphic profiles recorded elsewhere on Poike (Mieth and Bork 2004: 57-58). They attest to deforestation by burning from the 13th

century AD onwards and continuation of this activity until at least the 16th century AD.

CONCLUSION AND PERSPECTIVES

The work undertaken at Ahu Motu Toremo Hiva in 2004 and 2005 has brought to light several unexpected elements: the sequential emplacement of ritual platforms, testifying to the use of a site that has at least three times been completely rearranged, the systematic disassembling of *poro* pavements before each phase of abandonment, and the probable recycling of one *moai*.

All of these discoveries shed new light on the history of Easter Island *ahu*. Recycling, disassembling, and re-use of architectural elements and statues characterize the monuments at Ahu Motu Toremo Hiva. Such dynamics are not restricted to this site, but have already been observed elsewhere, at Anakena and at La Pérouse, more in particular at Ahu Nau Nau, Ahu Heki'i and Ahu Ra'ai (Martinsson-Wallin and Wallin 2000:37-38).

In addition, the geomorphological study of Ahu Motu Toremo Hiva has permitted us to determine that each abandonment phase of an *ahu* was coupled with agricultural exploitation of the area situated some hundred meters higher up the slope (to the south of the monuments). Evidently, the traditional settlement pattern of villages inserted between the *ahu* and the agricultural land, all functioning simultaneously (Flenley and Bahn 2002:93-94), must be questioned, at least in part.

ACKNOWLEDGEMENTS

We thank Iovani Paoa Tuki and his team for their collaboration in field activities; Francisco Torres Hochstetter (*Museo Antropológico P. Sebastián Englert*, Easter Island, Chile) for help in regard to various practical matters; and the *Consejo de Monumentos Nacionales* of Chile and the *Consejo de Monumentos Rapa Nui* for kindly granting permission to conduct research on Easter Island. Funding for the project was provided by the Belgian Federal Science Policy Office.

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